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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,731	11/20/2003	Francois Mach	23135-501 CIP CON	1822

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EXAMINER	
HUYNH, CARLIC K	
ART UNIT	**PAPER NUMBER**
1617	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/718,731	MACH, FRANCOIS	
	Examiner	Art Unit	
	Carlic K. Huynh	1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 September 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 November 2003* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of the Claims

1. Claims 1-16 are pending in the application in response to the restriction requirement submitted on March 23, 2007. Accordingly, claims 1-16 are being examined on the merits herein.

Election/Restrictions

2. Applicant's election of: (1) rheumatoid arthritis as the species of an autoimmune disease; and (2) atorvastatin as the species of a statin, in the reply filed on September 24, 2007 is acknowledged. Because Applicants did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Accordingly, claims 1-16 are examined on the merits herein.

The election/restriction requirement is deemed proper and is made FINAL.

Information Disclosure Statement

The Information Disclosure Statement has not been submitted at the time of this Office Action.

Drawings

3. The drawings, filed on November 20, 2003, are objected to because the copies are too dark. Specifically, Figures 4c, 7, and 9b are too dark and thus prevent their proper interpretation. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The disclosure is objected to because of the following informalities: typographical errors. On page 35, line 11 of the specification, "gaz" is misspelled.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-16 are rejected to under 35 U.S.C. 112, first paragraph, as failing to adequately teach how to make and/or use the invention, and thereby failing to provide an enabling disclosure.

The instant specification fails to provide information that would allow the skilled artisan to practice the instant invention without undue experimentation. Attention is directed to *In re Wands*, 8 USPQ2d 1400 (CAFC 1988) at 1404 where the court set forth the eight factors to consider when assessing if a disclosure would have required undue experimentation. Citing *Ex parte Forman*, 230 USPQ 546 (BdApls 1986) at 547 the court recited eight factors:

1) the quantity of experimentation necessary;

2) the amount of direction or guidance provided;

3) the presence or absence of working examples;

4) the nature of the invention;

5) the state of the prior art;

6) the relative skill of those in the art;

7) the predictability of the art; and

8) the breadth of the claims.

Applicant fails to set forth the criteria that defines a "functionally equivalent molecule of a statin". Additionally, Applicant fails to provide information allowing the skilled artisan to

ascertain these compounds with undue experimentation. In the instant case, only a limited number of "functionally equivalent molecule of a statin" examples are set forth, thereby failing to provide sufficient working examples. It is noted that these examples are neither exhaustive, nor define the class of compounds required. The pharmaceutical art is unpredictable, requiring each embodiment to be individually assessed for physiological activity. The instant claims read on all "functionally equivalent molecule", necessitating an exhaustive search for the embodiments suitable to practice the claimed invention. Applicants fail to provide information sufficient to practice the claimed invention, absent undue experimentation.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "statin" in claim 1, for example, and throughout the application renders the claims indefinite as to what compounds are encompassed by the claims. It is not clear what naturally occurring and synthetic molecules in the statin family are encompassed by the claims herein (page 11, lines 26-28; and page 12, lines 1-4 in the specification). It is not clear what statin family is referred to in the instant case. Only a few well-known HMG-CoA reductase inhibitors are listed in the instant specification (page 11, lines 26-28; and page 12, lines 1-4 in the specification). It is unclear to one of ordinary skill in the art what other compounds are

considered as "statin" compounds since a vast number of compounds would have been encompassed herein.

The expression "statin...has no lipid-lowering effect" in claim 10 renders the claim indefinite because it is not clear what HMG-CoA reductase inhibitors are encompassed by the claim. Atorvastatin is a well-known HMG-CoA reductase inhibitor that has lipid-lowering effects (page 22, lines 6-7 in the specification).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7. Claims 1-2, 4-9, and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Partridge (US 6,403,637) as evidenced by Kyburz et al. (The Journal of Immunology, 1999, Vol. 163, pp. 3116-3122).

Partridge teaches a method of treating rheumatoid arthritis comprising atorvastatin (column 6, lines 20-21 and 64). The treatment is particularly useful to human patients (column 8, line 40). The composition can be administered transdermally (column 8, line 55).

Moreover, Kyburtz et al. disclose that CD-40 signaling is involved in rheumatoid arthritis (abstract). It is noted that it is known in the prior art that activated T-cells are involved in rheumatoid arthritis (see page 3, lines 23-25 in the specification).

Applicants' attention is directed to *Ex parte Novitski*, 26 USPQ2d 1389 (BOPA 1993) illustrating anticipation resulting from inherent use, absent a *haec verba* recitation for such utility. In the instant application, as in *Ex parte Novitski*, supra, the claims herein are directed to achieving MHC Class II immunomodulation and CD40-mediated anti-immuno-inflammatory effect with old and well known compounds or compositions and the specific activities of the administration of an old and well known compound, atorvastatin, in the cellular level. It is now well settled law that administering compounds inherently possessing a protective utility anticipates claims directed to such protective use. Arguments that such protective use is not set forth *haec verba* are not probative. Prior use for the same utility clearly anticipates such utility, absent limitations distancing the proffered claims from the inherent anticipated use. Attempts to distance claims from anticipated utilities which specific limitations will not be successful. At page 1391, *Ex parte Novitski*, supra, the Board said "We are mindful that, during the patent examination, pending claims must be interpreted as broadly as their terms reasonably allow". *In re Zletz*, 893 F.2d 319, 13 USPQ2d 1320 (Fed. Cir. 1989). As often stated by the CCPA, "we will not read into claims pending applications limitations from the specification". *In re Winkhaus*, 52 F.2d 637, 188 USPQ 219 (CCPA 1975). In the instant application, Applicants'

failure to distance the proffered claims from the anticipated prophylactic utility, renders such claims anticipated by the prior inherent use.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 3 and 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Partridge (US 6,403,637) as evidenced by Kyburz et al. (The Journal of Immunology, 1999, Vol. 163, pp. 3116-3122) as applied to claims 1-2, 4-9, and 16 above.

Partridge teaches treating rheumatoid arthritis by administrating atorvastatin or collagenase-3 or other matrix metalloproteinases (column 6, lines 30-40). Since collagenase-3 or other matrix metalloproteinases are not immunosuppressive agents, it would be obvious that the atorvastatin is administered in the absence of any other immunosuppressive agents.

Partridge also teaches that statins are compounds that are widely used to lower serum cholesterol (column 6, lines 56-57). Thus, it would be obvious that the amount of atorvastatin used may be at a dose that has no lipid-lowering effect.

Partridge further teaches the specific dosage and the route of administration of atorvastatin may be calculated depending on the formulation and route of administration of the compound (see column 9, lines 40-62). Moreover, the compositions of the invention can be administered by any suitable route known in the art (column 8, lines 51-53). Thus, it would be obvious the atorvastatin composition may be administered daily.

Partridge does not expressly teach that the mammal as human or a mammal not suffering from hypercholesterolemia. Partridge does not expressly teach the dosage of atorvastatin as 10 to 80 mg daily or 20 to 40 mg daily. Partridge does not expressly teach the route of administration as intralesional, intraperitoneal, intramuscular or intravenous injection; infusion; or topical, nasal, oral, ocular, or otic route of administration.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ atrovastatin, in the dosage and regimen herein, to treat rheumatoid arthritis in mammal who does not suffer from hypercholesterolemia.

One of ordinary skill in the art would have been motivated to employ atorvastatin, in the dosage and regimen herein, to treat rheumatoid arthritis in mammal who does not suffer from hypercholesterolemia because based on Partridge, atorvastatin is useful in treating arthritis. Therefore, one of ordinary skill in the art would have been reasonably expected atorvastatin to be useful in treating various forms of arthritis such as rheumatoid arthritis, regardless of the patient is suffering from hypercholesterolemia or not. Moreover, the optimization of result therapeutic

parameters (e.g., dosage range, dosing regimens) is obvious as being within the skill of the artisan. The skilled of artisan would possess all conventional administration methods for the active compounds such as oral administration. The selection of one or another route of administration would be seen as a simple selection from among obvious alternatives.

Double Patenting

Statutory-Type

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

9. Claims 1, 3, 5, 8-9, and 11-16 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-4 and 6-11 of copending Application Mach (11/111,185). The MHC class II mediated immunomodulation in a mammal is inherently present in the method of administering a statin compound to the mammal. This is a provisional double patenting rejection since the conflicting claims have not been patented.

Obviousness-Type

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference

claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 1, 3-6, 8-9, 12, and 14 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-3, 5-7, 26, and 28-30 of copending Application Mach (10/349,549).

The instant claims 1, 3-6, 8-9, 12, and 14 are directed to a method of treating multiple sclerosis or rheumatoid arthritis comprising the topical, intramuscular, or intravenous administration to a mammal that does not suffer from hydrocholesterolaemia of 10 to 80 mg of atrovastatin.

Claims 1-3, 5-7, 26, and 28-30 of Mach are directed to a method of treating multiple sclerosis or rheumatoid arthritis comprising the topical, intramuscular, or intravenous administration to a mammal that does not suffer from hydrocholesterolaemia of 10 to 80 mg of atrovastatin and a second multiple sclerosis drug.

The claims of Mach and the instant application are obvious because the instant claims teach a method of treating multiple sclerosis or rheumatoid arthritis **comprising** administrating

atorvastatin. The open language of "comprising" renders the instant claims obvious to include a second multiple sclerosis drug.

This is a provisional double patenting rejection since the conflicting claims have not been patented.

11. Claims 36 and 45-48 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of copending Application Mach (11/432,861).

The instant claims 1, 3-6, 8-9, 12, and 14 are directed to a method of treating rheumatoid arthritis comprising the topical administration to the dermis or eye of a human of 10 to 80 mg of atrovastatin. The amount of atorvastatin has no lipid-lowering effect.

Claims 1-3, 5-7, 26, and 28-30 of Mach are directed to a method of treating rheumatoid arthritis comprising the topical administration to the dermis or eye of a human of 10 to 80 mg of atrovastatin and a second drug. The amount of atorvastatin has no lipid-lowering effect.

The claims of Mach and the instant application are obvious because the instant claims teach a method of treating rheumatoid arthritis **comprising** administrating atorvastatin. The open language of "comprising" renders the instant claims obvious to include a second drug.

This is a provisional double patenting rejection since the conflicting claims have not been patented.

Conclusion

12. No claims are allowable.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlic K. Huynh whose telephone number is 571-272-5574. The examiner can normally be reached on Monday to Friday, 8:30AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreenivasan Padmanabhan can be reached on 571-272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ckh

S. Wang

SHENGJUN WANG
PRIMARY EXAMINER